

**BOARD OF COUNTY COMMISSIONERS**

**AGENDA ITEM SUMMARY**

Meeting Date: 15 September 2004 Division: Growth Management

Bulk Item: Yes X No        Department: Marine Resources

**AGENDA ITEM WORDING:**

Approval of an amendment to the contract between Monroe County and Ayres & Associates for completion of engineering survey work on three potential mooring field areas.

**ITEM BACKGROUND:**

The Board approved a contract with Ayres & Associates in February of 2003 to complete engineering surveys for three potential mooring field sites. A CIAP grant through the state is being utilized to pay for this contract – approximately \$105,000. This contract amendment provides for a time extension only to December 31, 2004 in order to complete remaining work. There are no changes to the scope of the contract or to the contract amount.

**PREVIOUS RELEVANT BOCC ACTION:**

February 2003 – Approval of Ayres contract

**CONTRACT/AGREEMENT CHANGES:**

Time extension

**STAFF RECOMMENDATIONS;**

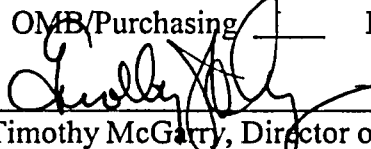
Approval

**TOTAL COST:** \$104,710 **BUDGETED:** Yes X No       

**COST TO COUNTY:** None **SOURCE OF FUNDS:** CIAP grant

**REVENUE PRODUCING:** Yes        No X **AMOUNT Per Month**        **Year**       

**APPROVED BY:** County Atty X OMB/Purchasing        Risk Management X

**DIVISION DIRECTOR APPROVAL:**   
Timothy McGarry, Director of Growth Management

**DOCUMENTATION:** Included X To Follow        Not Required       

**DISPOSITION:**        **AGENDA ITEM NO.:** I-7

**MONROE COUNTY BOARD OF COUNTY COMMISSIONERS**

**CONTRACT SUMMARY**

Contract with: Ayres & Associates Contract #             
 Effective Date: 02/19/2003  
 Expiration Date: 12/31/2004

Contract Purpose/Description:  
Contract for bathymetric surveys and mapping at three locations, Monroe County, Florida

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Contract Manager: Garrett 2507 Marine Resources / 11  
 (Name) (Ext.) (Department/Stop #)

for BOCC meeting on 9/15/04 Agenda Deadline: 8/31/04

**CONTRACT COSTS**

Total Dollar Value of Contract: \$ 104,710 Current Year Portion: \$ 47,500  
 Budgeted? Yes ☒ No ☐ Account Codes: 157-53012-530490-GW0203-530340  
 Grant: \$ 104,710  
 County Match: \$ 0

**ADDITIONAL COSTS**

Estimated Ongoing Costs: \$ NA/yr For: NA  
 (Not included in dollar value above) (eg. maintenance, utilities, janitorial, salaries, etc.)

**CONTRACT REVIEW**

	Date In	Changes Needed	Reviewer	Date Out
Division Director	<u>9-7-04</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<u>[Signature]</u>	<u>9-7-04</u>
Risk Management	<u>9-7-04</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<u>M. Slomkowski</u>	<u>9-7-04</u>
O.M.B./Purchasing	<u>9/7/04</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<u>[Signature]</u>	<u>9/7/04</u>
County Attorney	<u>9-2-04</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<u>K. Lu</u>	<u>9-2-04</u>

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Amendment 1

**CONTRACT FOR BATHYMETRIC SURVEYS  
AND MAPPING  
AT THREE LOCATIONS, MONROE COUNTY, FLORIDA**

THIS CONTRACT AMENDMENT is entered into between Monroe County, whose address is Marathon Government Center, 2798 Overseas Highway, Suite 420, Marathon, Florida 33050, hereafter the County, and Ayres Associates, 8875 Hidden River Parkway, Suite 200, Tampa, Florida 33637, hereafter AYRES.

Section 1. The County's Contract with AYRES dated February 19, 2002 is hereby amended to extend the contract termination date through December 31, 2004.

Section 2. In all other respects, the Contract with AYRES, will remain in full force and effect.

Section 3. This Contract Amendment takes effect on the date of the signature of the last party to sign and will terminate, without further amendment, December 31, 2004.

IN WITNESS WHEREOF each party hereto has caused this Agreement to be executed by its duly authorized representative.

(SEAL)  
Attest: DANNY L. KOLHAGE, CLERK

BOARD OF COUNTY COMMISSIONERS  
OF MONROE COUNTY, FLORIDA

By \_\_\_\_\_  
Deputy Clerk

By \_\_\_\_\_  
Mayor/Chairman

(SEAL)  
Attest:

AYRES ASSOCIATES

By \_\_\_\_\_  
Title \_\_\_\_\_

By \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED AS TO FORM AND  
LEGAL SUFFICIENCY

KPL 9.2.04  
ATTORNEY'S OFFICE

**CONTRACT FOR BATHYMETRIC SURVEYS**  
**AND MAPPING**  
**AT THREE LOCATIONS, MONROE COUNTY, FLORIDA**

THIS CONTRACT is entered into by Monroe County, a political subdivision of the State of Florida, whose address is the Marathon Government Center, 2798 Overseas Highway, Marathon, Florida 33050, hereafter the COUNTY, and Owen Ayres & Associates, Inc. 8875 Hidden River Parkway, Suite 200, Tampa, Florida 33637, hereafter AYRES .

**Section 1.** AYRES and the COUNTY, for the consideration named agree that AYRES will complete five tasks as outlined in Exhibit A, defined as the Scope of Services.

**Section 2.** Completion of Tasks 1 through 5 will be accomplished within a timeframe of approximately six months from the date of the County's Notice to Proceed.

**Section 3.** Upon receipt of an invoice from AYRES for any task or combination of tasks shown in Exhibit A, the COUNTY agrees to pay the amount as defined for each task shown in Exhibit B. Payment will be based on a complete review and approval of each task product by the Director of Marine Resources or his designee. The total amount of the Contract shall not exceed \$104,710 without amendment of this CONTRACT.

**Section 4.** Either party may terminate this CONTRACT because of the failure of the other party to perform its obligations under the CONTRACT. If the COUNTY terminates this CONTRACT because of AYRES's failure to perform, then the COUNTY must pay the AYRES the amount due for all work satisfactorily completed as determined by the COUNTY up to the date of the AYRES's failure to perform but minus any damages the COUNTY suffered as a result of AYRES's failure to perform. The damage amount must be reduced by the amount saved by the COUNTY as a result of the CONTRACT termination. If the amount owed AYRES by the COUNTY is not enough to compensate the COUNTY, then AYRES is liable for any additional amount necessary to adequately compensate the COUNTY up to the amount of the CONTRACT price.

**Section 5.** AYRES acknowledges and agrees that public use of any or all reports or other printed materials, videos, audio recordings, films and photographs produced as part of this Plan may not be restricted under the copyright laws of the United States of America.

**Section 6.** Records of AYRES's direct personnel payroll and other costs and expenses pertaining to the Plan and records of the accounts between the COUNTY and AYRES must be kept on a generally recognized accounting basis and must be available to the COUNTY. The records also must be in form

sufficient to permit a grant specific audit to be performed in accordance with the rules of the Auditor General. AYRES must keep the records for five years following the completion of the Plan.

**Section 7.** AYRES acknowledges that all records, data, and documents created as part of the Plan are public records under Chapter 119, Florida Statutes. As a result, they must be made available at a reasonable place and time upon the request of a member of the public. Failure to do so is a breach of this CONTRACT entitling the COUNTY to treat the CONTRACT as terminated on the date of the violation of Chapter 119, Florida Statutes, with the COUNTY's obligation to pay extending only to work completed as of that date plus amounts previously retained, if any.

**Section 8.** In the course of performing services under this contract AYRES may not discriminate against any employee because of race, age, creed, color, sex or national origin. AYRES will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, age, creed, color, sex, or national origin. Such action may include, but need not be limited to, the following: employment upgrading, demotion, or transfer; recruitment or recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeships. AYRES must insert language similar to

this Section in any of AYRES's subcontracts, if any, funded through this CONTRACT except for subcontracts for standard commercial supplies and raw materials.

**Section 9.** In carrying out the services under this contract, AYRES must comply with the requirements of the Americans With Disabilities Act and federal regulations issued under that Act.

**Section 10.** AYRES warrants that it has not employed, retained, or otherwise had act on its behalf any former COUNTY officer or employee subject to the prohibition of Section 2 of Ordinance No. 010-1990 or any COUNTY officer or employee in violation of Section 3 of Ordinance No. 020-1990. For breach or violation of this provision, the COUNTY, in its discretion, may terminate this CONTRACT without liability and may also, in its discretion, deduct from the CONTRACT or purchase price, or otherwise recover the full amount of any fee, commission, percentage gift, or consideration paid to the former COUNTY officer or employee.

**Section 11.** A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not perform work as a contractor, supplier,

subcontractor, or AYRES under contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of the Florida Statutes, for the Category two for a period of 36 months from the date of being placed on the convicted vendor list.

**Section 12.** AYRES agrees to maintain adequate insurance or equivalent as provided in Exhibit B.

**Section 13.** All communication between the parties should be through the following individuals or their designees:

Monroe County  
George Garrett, Director  
Department of Marine Resources  
2798 Overseas Highway,  
Suite 420  
Marathon, FL 33050

AYRES  
Nizar K. Jetha  
Ayres Associates  
8875 Hidden River Parkway  
Suite 200  
Tampa, Florida 33637

**Section 14.** This CONTRACT is governed by the laws of the State of Florida.

Venue for litigation arising under this contract must be in a court of competent jurisdiction located in Monroe County, Florida.

**Section 15.** The effective date of this CONTRACT is the date of signature of all parties. The termination date is one year after the date of signature of all parties.

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Section I. IN WITNESS WHEREOF each party hereto has caused this Agreement to be executed by its duly authorized representative.

(SEAL)

Attest: DANNY L. KOLHAGE, CLERK

By Sahel C. DeSantis  
Deputy Clerk

Date 02-19-03

(SEAL)

Attest:

By Andrea D. Martin  
Title Administrative Assistant

Date 3/12/03

BOARD OF COUNTY COMMISSIONERS  
OF MONROE COUNTY, FLORIDA

By Spice M. Spicar  
Mayor/Chairman

AYRES ASSOCIATES

By M. Jetha  
Title Mizar K. Jetha, P.E.  
VP-Florida Operations

APPROVED AS TO FORM AND  
LEGAL SUFFICIENCY

[Signature]  
ATTORNEY'S OFFICE

EXHIBIT A

SCOPE OF SERVICES  
FOR  
BATHYMETRIC SURVEY AND MAPPING

## **SCOPE OF SERVICES**

### **DESCRIPTION OF SERVICES REQUIRED**

This project requires bathymetric surveys, mapping, and photogrammetry for use in planning related to implementing mooring fields at three locations in the Florida Keys. The CONSULTANT will use real-time kinematics Global Positioning System (GPS) hydrographic survey methods to complete the mooring field surveys. The GPS survey methods will combine boat elevations determined with GPS and depths from survey grade fathometers to provide bathymetric data with accuracies within 6 cm horizontally and vertically of the actual bottom elevations. These data will be used to develop a digital elevation model of the surveyed areas. The data will be merged with the aerial photography to show 1-foot contour bathymetry referenced to mean low water. A description of the specific project tasks to be completed by the CONSULTANT is provided below.

### **PROJECT AREA**

The project area for the services defined within this scope of work is delineated in Figures 1 through 3. Project area one (Figure 1), Sunset Cove mile marker 99 located in Key Largo, will consist of approximately 140 acres of hydrographic survey. This will include the 114 acres as specified in the RFP with additional boundary overlap. The second project area (Figure 2) is located in Community Harbor, mile marker 92. This will include approximately 67 acres of survey, including the two marinas located within the project site. The last project area (Figure 3), mile marker 29 located on South Pine Channel will consist of approximately 630 acres. This includes the entire area south of US Highway 1, crossing over South Pine Channel, to an east-west line connecting the two southern most points defining South Pine Channel.

### **Task 1: Control Survey**

**GPS Ground Control Surveys and Aerial Target Placement.** Existing horizontal and vertical control monuments within the project area will be used to the fullest extent possible. If existing control is not available new control points will be placed as necessary to support photogrammetric mapping, hydrographic surveys, and the development of 1-foot bathymetric contours.

The CONSULTANT will investigate existing horizontal and vertical control within the aerial coverage of each site. We understand that the FDOT and the County have control networks in the area. The control will be used to tie the aerial photography and bathymetric survey to the State Plane coordinate system, NAD 83 and the to the vertical datum, NAVD 88. Once the control information is identified, the CONSULTANT will provide the COUNTY the descriptions of points to be recovered and targeted. The CONSULTANT will provide the required control surveys and aerial target placements. The objective is to have the targets placed before the flight and readily visible on the aerial photography.

## **Task 2: Aerial Photography**

Upon completion of the targeting of the control points, the CONSULTANT will obtain aerial photography of each site. Reasonable effort will be made to schedule the over-flight under conditions, when the sky is clear, minimal haze, water flat, minimal sediment in the water, and low tide. The aerial photography will be obtained from a flight altitude of 4,800' resulting in a 1"=800' negative scale. This scale will allow for coverage of each site in a single flight line and allow for significant coverage beyond the initial project areas. The photography will be true color and obtained in stereo coverage with 80% forward lap. We anticipate approximately 10 exposures at each site. The forward lap will insure exposures that will not have sun glare inherent in aerial photography over water.

The time of flight will be recorded and compared with the tide level for use in mapping mean high water line. If possible, flights will be timed to occur during low tide. The CONSULTANT will create either color or black and white digital orthophotography for the three anchorage sites that meets or exceeds National Map Accuracy Standards for 6-inch ground resolution, 1"=100' scale orthophotography.

## **Ortho Photography**

The aerial photography will be scanned at a rate of 15 microns that will result in a ground resolution of 6". The scanned images will be analytically triangulated using the vertical and horizontal targeted points. Ortho rectification will be made to the analytical solution. The CONSULTANT will use ZI Imaging softcopy workstations for the analytical triangulation and ortho rectification. Care will be taken to hide any mosaic lines, and to tone and color balance each image. The resulting image files will be delivered to the COUNTY in a Geo TIFF format and in a MrSID compression format on CD ROM. The orthophoto file will also be incorporated with bathymetric contours and map sheet format. One paper plot of each site will also be provided.

The process for creating digital orthophotography over each anchorage site will include:

1. Acquiring aerial photograph over each site at a negative scale of 1"=800'.
2. Scanning the aerial photograph negatives at a rate of 15 microns to produce a digital image with a 6-inch ground resolution.
3. Rectifying each digital image to targeted ground control.
4. Quality control checks of resultant digital orthophotography.

## **Task 3 Tide Gages**

Project tide gages will be installed by the CONSULTANT at each of the three sites. The gages will be operated during the entire period of the hydrographic survey, not just during the hydrographic survey of the individual site. The gages will be surveyed and the data referenced to the 1988 North American Vertical Datum (NAVD-88). These project gages will be compared

with local real time gages located at Kew West (gage No. 8724580) and Vaca Key (gage No. 8723970) and the data will be used to adjust the hydrographic survey into a local, site specific mean low water (MLW) datum. Since the hydrographic survey will be performed using GPS, the tide gages will also be used as a quality control check of the hydrographic survey elevations.

#### **Task 4 Bathymetric Survey**

Bathymetric survey data will be collected by boat mounted survey equipment using GPS real-time kinematic (RTK) hydrographic survey methods. Data will be logged to a portable computer using software that integrates the GPS positional data with depth soundings collected using an Innerspace Model 448 fathometer (depth sounder). Positional and depth data will be recorded at 1-second intervals. The data lines, for 1-foot contours, will be spaced about 50 to 100 feet apart or as required for meeting the requirements for 1-foot contour mapping. The survey coverage will be limited to areas that are accessible and navigable using a prop-driven outboard motor. The surveys are typically limited to areas where the depth is greater than 1.5 feet. This may impose some limitations on how close the boat can get to the shoreline. The accuracy of depth sounding equipment is directly related to the speed of sound in water, which is influenced by water temperature and density. As per standard hydrographic surveying protocol, the CONSULTANT will conduct a bar check procedure and calibrate the depth sounder twice per day. The CONSULTANT will also conduct a minimum of two bottom truthing measurements per site in areas where sea grass is present.

#### **Task 5 Data Processing and Mapping**

Once the data collection phase is complete, the raw hydrographic data will be processed through a detailed procedure to evaluate the accuracy of each survey point and filter out any erroneous data. This data will then be processed using the CONSULTANT'S unique in-house procedure and computer program that will adjust the data based on the data lines surveyed. This process will help generate a more accurate digital terrain model representation of the sea floor suitable for plotting one foot contours.

The final terrain model and digital mapping will be generated using Bentley Microstation and Intergraph Siteworks. However the resulting mapping will also be provided in AutoCAD format as requested. The drawing files will include the raw point data obtained from hydrographic surveying as well as break lines or other features used to develop the bathymetry. These data will be provided in separate layers in the drawing file. A 1-foot contour interval map will be prepared from the DTM. The map will be merged with the digital orthophography representing the shoreline areas.

The deliverables provided by the CONSULTANT to the county will include the following items:

- A map of the project area showing the location of the control points
- A coordinate listing and description for each control point
- Original aerial photos

- Digital Contour data, planimetric data, and DTM data in Microstation (.dgn) or AutoCAD (.dwg) format, and a DXF file with an associated world file (\*.wld)
- ASCII point data files for all random point and break line data
- A plotted contour map of the project area
- Summary report explaining the approach, methods and results of the surveying and mapping work. The report will include applicable surveyed area location/vicinity maps

# EXHIBIT B

## TASK COST SUMMARY

<b>BATHYMETRIC SURVEY AND MAPPING</b>		
<b>SUMMARY OF COSTS</b>		
<b>TASK No.</b>	<b>DESCRIPTION</b>	<b>COST</b>
1.0	Control Survey	\$ 12,735.00
2.0	Aerial Photography	\$ 14,295.00
3.0	Tide Gauge Installation	\$ 12,110.00
4.0	Bathymetric Survey	\$ 42,010.00
5.0	Data Processing and Mapping	\$ 23,560.00
	<b>TOTAL</b>	<b>\$ 104,710.00</b>



# EXHIBIT C

## Insurance Requirements

**WORKERS' COMPENSATION  
INSURANCE REQUIREMENTS  
FOR  
CONTRACT \_\_\_\_\_**

**BETWEEN  
MONROE COUNTY, FLORIDA  
AND  
\_\_\_\_\_**

Prior to the commencement of work governed by this contract, the Contractor shall obtain Workers' Compensation Insurance with limits sufficient to respond to the applicable state statutes.

In addition, the Contractor shall obtain Employers' Liability Insurance with limits of not less than:

\$500,000 Bodily Injury by Accident  
\$500,000 Bodily Injury by Disease, policy limits  
\$500,000 Bodily Injury by Disease, each employee

Coverage shall be maintained throughout the entire term of the contract.

Coverage shall be provided by a company or companies authorized to transact business in the state of Florida.

If the Contractor has been approved by the Florida's Department of Labor, as an authorized self-insurer, the County shall recognize and honor the Contractor's status. The Contractor may be required to submit a Letter of Authorization issued by the Department of Labor and a Certificate of Insurance, providing details on the Contractor's Excess Insurance Program.

If the Contractor participates in a self-insurance fund, a Certificate of Insurance will be required. In addition, the Contractor may be required to submit updated financial statements from the fund upon request from the County.

**VEHICLE LIABILITY  
INSURANCE REQUIREMENTS  
FOR  
CONTRACT \_\_\_\_\_**

**BETWEEN  
MONROE COUNTY, FLORIDA  
AND  
\_\_\_\_\_**

Recognizing that the work governed by this contract requires the use of vehicles, the Contractor, prior to the commencement of work, shall obtain Vehicle Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum, liability coverage for:

- Owned, Non-Owned, and Hired Vehicles

The minimum limits acceptable shall be:

\$300,000 Combined Single Limit (CSL)

If split limits are provided, the minimum limits acceptable shall be:

\$100,000 per Person  
\$300,000 per Occurrence  
\$ 50,000 Property Damage

The Monroe County Board of County Commissioners shall be named as Additional Insured on all policies issued to satisfy the above requirements.

**INSURANCE REQUIREMENTS  
FOR  
CONTRACT \_\_\_\_\_  
  
BETWEEN  
MONROE COUNTY, FLORIDA  
AND  
\_\_\_\_\_**

Prior to the commencement of work governed by this contract, the Contractor shall obtain General Liability Insurance. Coverage shall be maintained throughout the life of the contract and include, as a minimum:

- Premises Operations
- Bodily Injury Liability
- Expanded Definition of Property Damage

The minimum limits acceptable shall be:

\$500,000 Combined Single Limit (CSL)

If split limits are provided, the minimum limits acceptable shall be:

\$250,000 per Person  
\$500,000 per Occurrence  
\$ 50,000 Property Damage

An Occurrence Form policy is preferred. If coverage is provided on a Claims Made policy, its provisions should include coverage for claims filed on or after the effective date of this contract. In addition, the period for which claims may be reported should extend for a minimum of twelve (12) months following the acceptance of work by the County.

The Monroe County Board of County Commissioners shall be named as Additional Insured on all policies issued to satisfy the above requirements.

**PROFESSIONAL LIABILITY  
INSURANCE REQUIREMENTS  
FOR  
CONTRACT \_\_\_\_\_  
  
BETWEEN  
MONROE COUNTY, FLORIDA  
AND  
\_\_\_\_\_**

Recognizing that the work governed by this contract involves the furnishing of advice or services of a professional nature, the Contractor shall purchase and maintain, throughout the life of the contract, Professional Liability Insurance which will respond to damages resulting from any claim arising out of the performance of professional services or any error or omission of the Contractor arising out of work governed by this contract.

The minimum limits of liability shall be:

\$250,000 per Occurrence/\$500,000 Aggregate

**PRO1**